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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)  
12480-000130/US

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On \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Application Number  
10/550,950

Filed  
September 28, 2005

First Named Inventor  
Takaji Numao

Art Unit  
2629

Examiner  
Stuart S. McCommas

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

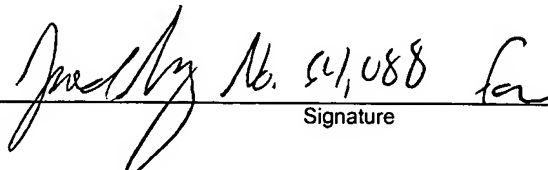
I am the

☐ applicant/inventor

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.  
Registration number 34,313.

☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
Signature

Donald J. Daley  
Typed or printed name

703-668-8000  
Telephone number

February 25, 2010  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/550,950                      Group Art Unit:2629  
Filing Date: September 28, 2005                      Examiner: S. McCommas  
Applicant: Takaji NUMAO  
Title: DISPLAY APPARATUS AND DRIVING METHOD THEREOF  
Attorney Docket: 12480-000130/US

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
**Mail Stop AF**

February 25, 2010

**REASONS FOR PRE-APPEAL BRIEF REQUEST**

Dear Sir:

Appellant hereby requests review of the December 18, 2009 Final Rejection of this application. Claims 15-34 are pending in the current application. Claims 15, 24 and 33 are the independent claims. Claims 15-34 stand finally rejected.

Appellant seeks the panel's review of (1) the rejection of claims 15-23 and 33-34 under 35 U.S.C. 103(a) as being unpatentable over Dawson et al. (U.S. Patent No. 6,229,506, hereinafter "Dawson") in view of Kimura (U.S. Patent Publication No. 2004/0080474, hereinafter "Kimura"), and further in view of Yumoto (U.S. Patent No. 6,859,193, hereinafter "Yumoto") and (2) the rejection of claims 24-32 under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of Dawson, and further in view of Yumoto because of clear errors in the Examiner's rejection and/or the Examiner has omitted one or more essential elements needed for a prima facie rejection.

In contrast to the Examiner's assertions, Dawson, Kimura, and Yumoto do not disclose or suggest "a third switching transistor for connecting the second terminal of the second capacitor to a **voltage line**" and "the voltage line being set to a value which corresponds to an anode potential from a **property** of the current driving light emitting element" as recited in claim 15. For instance, the Examiner

relies upon Yumoto as disclosing the “voltage line” of claim 15.<sup>1</sup> Appellant disagrees. Yumoto illustrates an anode line A in FIG. 9, which has a sufficient potential “so that equation (5)<sup>2</sup> still stands even if the voltage drop at the light emitting element OLED.”<sup>3</sup> The sufficient potential of the anode line A of Yumoto does not correspond to the voltage line of claim 15 because the sufficient potential is not derived from a **property** of the current driving light emitting element. Rather, the potential of the anode line A is *arbitrarily* determined in view of equation (5).

In addition, even assuming the anode line A of Yumoto corresponds to the voltage line of claim 15, the anode line A of FIG. 9 of Yumoto is not connected to a capacitor via a *switching transistor*. Rather, the anode line A of FIG. 9 is **directly** connected to the current driving light emitting element OLED. In other words, the anode line A of Yumoto is used to directly *drive* the OLED. Combining the anode line A of the circuit in FIG. 9 of Yumoto with either Dawson or Kimura would not make sense because Dawson and Kimura already disclose a method of driving an OLED. For instance, one of ordinary skill in the art would not connect the anode line A of Yumoto to the second terminal of capacitor 1811 of FIG. 18A of Kimura via transistor 1807 because Yumoto teaches that the anode line A is connected directly to the light emitting element. Further, in FIG. 18A, transistor 1807 of Kimura is *already* connected to the current supply line. One of ordinary skill in the art would not change the current supply line 1813 of Kimura to the anode line A of Yumoto because the circuit in FIG. 18A would be *inoperable* because FIG. 18A would not have a supply line. If the supply line was the anode potential, most of the components of FIG. 18A of Kimura would not work.

Therefore, Yumoto, Dawson, and Kimura do not disclose or suggest “a third switching transistor for connecting the second terminal of the second capacitor to a **voltage line**” and “the voltage line being set to a value which corresponds to an anode potential **from a property** of the current driving light emitting element” as recited in claim 15. As a result, these references cannot render claim 15 obvious to one of ordinary skill in the art. Independent claim 33 contains features similar to claim 15, and therefore is patentable for at least the same reasons.

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<sup>1</sup> December 18, 2009 Final Office Action at page 4.

<sup>2</sup> Equation (5):  $|V_{ds}| > |V_{gs} - V_{th}|$

<sup>3</sup> See Yumoto, column 5, lines 55-56.

In addition, in contrast to the Examiner's assertions, Kimura does not disclose or suggest "a **second switching transistor** for connecting a second terminal of the second capacitor to the current **output terminal** of the driving transistor via a wire or a transistor" as recited in claim 15. Appellant directs the attention of the Panel to pages 15-16 of the September 15, 2009 Amendment for detailed arguments against this rejection. In particular, Appellant directs the attention of the Panel to FIG. 18A of Kimura, as shown on page 15 of September 15, 2009 Amendment. The Examiner continues to assert that transistor 1817 of FIG. 18A corresponds to the "second switching transistor" of claim 15. However, transistor 1817 is *clearly* connected to the input terminal of the driving transistor 1809 via transistor 1808 – not the output terminal. Any interpretation that would suggest that transistor 1817 is connected to the *output* terminal of driving transistor 1809 (via any transistor shown in FIG. 18A) is unreasonable. Therefore, Kimura does not disclose or suggest "a **second switching transistor** for connecting a second terminal of the second capacitor to the current **output terminal** of the driving transistor via a wire or a transistor" as recited in claim 15. Independent claim 33 contains features similar to the above-recited features of claim 15, and therefore is patentable over Kimura for the same reasons. Claims 16-32 and 34, dependent on claims 15 and 33, are patentable for the same reasons with respect to independent claims 15 and 33.

In addition, Appellants note that the Examiner's reliance on two separate references (e.g., Dawson and Kimura) as disclosing the terminals of the second capacitor is unreasonable and inappropriate. For instance, the Examiner relies upon Dawson as disclosing the "first terminal" of the second capacitor and Kimura as disclosing the "second terminal" of the second capacitor. In other words, the Examiner uses two separate references to illustrate the connection of a single capacitor. Appellants submit that this is unreasonable.

Furthermore, in contrast to the Examiner's assertions, Kimura and Dawson do not disclose or suggest the features of dependent claim 16. For instance, the Examiner breaks apart claim 16, and relies upon Dawson as disclosing "the first switching transistor connects the current control terminal of the current output terminal" (during the first period), "the first switching transistor disconnects the current control terminal from the current output terminal" (during the second period), and "the driving transistor supplies a current to the current light emitting element", and Kimura as disclosing "the second switching transistor disconnects

the second terminal and the current output terminal from each other, and the third switching transistor connects the second terminal to the voltage line" (during the first period), and "the third switching transistor disconnects the second terminal from the voltage line, and the second switching transistor connects the second terminal to the current output terminal, and "the second switching transistor operating in an opposite logic state from the third switching transistor in the first and second periods" (during the second period) as recited in claim 16.

First, Kimura does not disclose or suggest the "second switching transistor" and the "third switching transistor" in the manner claimed in claim 16. Appellant directs the attention of the Panel to pages 16-17 of the September 15, 2009 Amendment for detailed arguments against this rejection. For instance, transistor 1817 of Kimura (allegedly the second transistor) and transistor 1807 of Kimura (allegedly the third switching transistor) do not operate according to *alternating* logic levels, as reflected in claim 16. For instance, according to claim 16, the second switching transistor disconnects the second terminal of the second capacitor and the current output terminal of the driving transistor, and the third switching transistor connects the second terminal of the second capacitor to the voltage line, and such connection is contrary to that in the second period. FIGS. 19A-19F of Kimura demonstrate that transistors 1817 and 1807 do not operate according to the claimed features of claim 16 for the reasons discussed on pages 16-17 of the September 15, 2009 Amendment. Also, the Examiner appears to be disregarding the limitation "the second switching transistor operating in an opposite logic state from the third switching transistor in the first and second periods" as required by claim 16. As a result, Appellant submits that the combination of Kimura and Dawson do not disclose or suggest the features of claim 16.

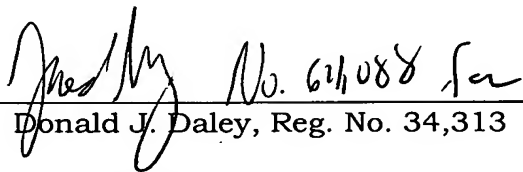
Also, the Examiner rejects claims 24-32 under 35 U.S.C. §103 as being unpatentable over Kimura in view of Dawson, and further in view of Yumoto. Appellants do not believe that the combination of Dawson, Kimura, and Yumoto discloses or suggests "the voltage line being set to a value which corresponds to an anode potential from a property of the current driving light emitting element" as recited in independent claim 33 for the same reasons discussed with respect to independent claim 15. In addition, Appellants do not believe that the combination of Dawson and Kimura discloses or suggest the features of dependent claim 25 for the same reasons discussed with respect to dependent claim 16.

**CONCLUSION**

Appellants respectfully request that the Panel reconsider and withdraw of all the rejections of record, and allow the pending claims.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 CFR §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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